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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/586,651

07/14/2008

Hisatomi Hosaka

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EXAMINER

CHAN, EMILY Y

ART UNIT

PAPER NUMBER

2829

MAIL DATE

DELIVERY MODE

03/20/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/586,651	Applicant(s) HOSAKA, HISATOMI	
	Examiner EMILY Y. CHAN	Art Unit 2829	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 July 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/19/06;12/22/06;6/16/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Figures 7-8 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3 and 5-7 are rejected under 35 U.S.C. 102 (b) as being anticipated by Eldridge et al (US Patent No. 5,974,662).

With respected to the claim 1, Eldridge et al ('662) disclose (see Fig. 5) a probe card (probe card assembly) that inspects an electrical characteristic of an object (wafer 508) to be inspected, comprising: a contactor (space transformer 506); a circuit board (502, see Col. 23, lines 41-42 "circuit board"); an intermediate member (interposer 504) provided between said contactor (506) and said circuit board (502) to have said contactor (506) and said circuit board (502) in elastic and electrical contact with each other (see Col. 23, lines 51-54 "resilient interconnection"); a coupling member (combination of ring 540, screws 542, plate 534) integrating said contactor (506), said circuit board (502), and said intermediate member (504); and a reinforcing member (534) reinforcing said circuit board (502) integrated via said coupling member.

With respected to the claim 2, Eldridge et al ('662) disclose that their intermediate member (504) is an interposer having a substrate (512) and a plurality of elastically deformable contacts (resilient interconnection 514 and 516) provided at least on said circuit board side of the substrate (512).

With respected to the claim 3, Eldridge et al ('662) disclose that a plurality of elastically deformable contacts (514, 516) are provided as said intermediate member (504) on said contactor (506).

With respected to the claim 5, Eldridge et al ('662) disclose elastic members (ring 544) are interposed between said contactor (506) and said circuit board (502) and between said circuit board (502) and said reinforcing member (534) respectively.

With respected to the claim 6, Eldridge et al ('662) disclose that their contactor (506) has a ceramic substrate (518) and a plurality of probes (resilient contacts 524)

provided on a surface of the ceramic substrate (518) on a side (top side) to be in contact with the object (wafer 508) to be inspected.

With respected to the claim 7, Eldridge et al ('662) disclose that their reinforcing member (534) has a flat plate shape and is disposed opposite said intermediate member (504) across said circuit board (502), wherein said reinforcing member (534) and said contactor (506) are fixed to each other via said coupling member (combination of ring 540, screws 542, plate 534), and wherein said circuit board (2) is movably attached to said coupling member (combination of ring 540, screws 542, plate 534).

Therefore, Eldridge et al ('662) anticipated the claimed invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eldridge et al ('662) in view of ABE (JP 405218149).

Eldridge et al ('662) fail to disclose that their intermediate member (512) is made of conductive rubber.

ABE ('149) discloses a probe card device (see fig. 2) comprising an intermediate member (5) which is made of conductive rubber (rubber sheet 7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to incorporate the conductive rubber of ABE

(‘149) into Eldridge et al (‘662)’s intermediate member (504) so that Eldridge et al (‘662)’s intermediate member is made of conductive rubber as claimed for the purpose of performing electrical measurement on an IC chip on a wafer with high precision as disclosed by ABE (‘149) (see Abstract).

4. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eldridge et al (‘662) in view of Mori (US Patent No. 7,075,319).

With respected to the claim 8, Eldridge et al (‘662) fail to disclose a pressing member pressing said circuit board (502) toward said contactor side (506).

Mori (‘319) discloses a probe card (see Fig. 3) comprising a circuit board (100), a contactor (300) and a reinforcing member (600, 630). Mori (‘319) exclusively discloses that his reinforcing member (600, 630) has a pressing member (620) pressing the said circuit board (100) toward said contactor side (300) (see Col. 6, lines 15-16).

With respected to the claim 9. Mori (‘319)’s reinforcing member (600, 630) can have a plurality of the pressing member (620) as desired (see MPEP 2144.04 VI, B. “Duplication of Parts”).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to incorporate the pressing member of Mori (‘319) into Eldridge et al (‘662)’s reinforcing member (600, 630) so that Eldridge et al (‘662)’s reinforcing member has the pressing member as claimed for the advantage of providing a probe card that prevents a deformation of a components such as a contactor unit or like as disclosed by Mori (‘319) (see Col. 2, lines 28-30).

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Satou et al (US Publication No. 2004/0257098) disclose a probe card (see Fig. 1) comprising a circuit board, contactor, intermediate member and reinforcing member.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EMILY Y. CHAN whose telephone number is (571)272-1956. The examiner can normally be reached on 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ha T Nguyen can be reached on 571-272-1678. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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3/15/09

/Ha T. Nguyen/

Supervisory Patent Examiner, Art Unit 2829